NPCR Education and Training Series (NETS)

Module 7: Colorectal Malignancies

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Centers for Disease Control and Prevention
National Program of Cancer Registries
Atlanta, Georgia
www.cdc.gov/cancer/npcr

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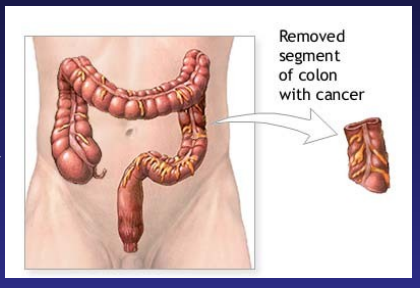
Advanced Abstracting Colorectal Cancer

IV. TREATMENT

Surgery and Adjuvant Therapy



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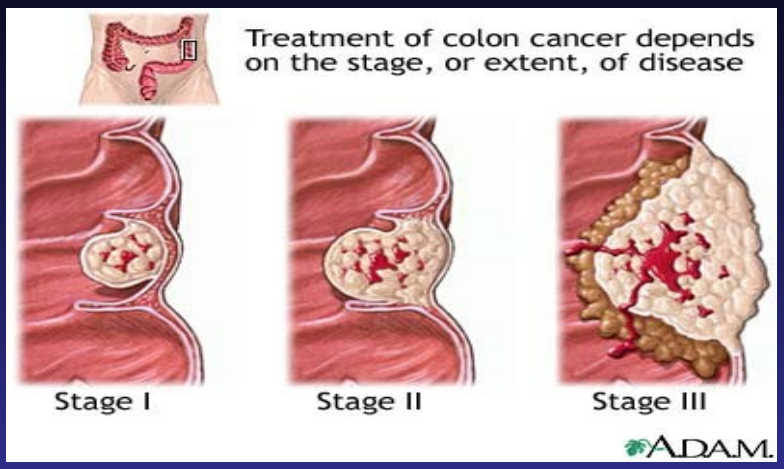
Now that we have had an introduction to colorectal cancer, diagnosis and workup procedures, and the various staging systems that determine how the patient is treated, we can discuss the surgical codes that are recorded on the abstract in more detail.

Accurate Staging is Important



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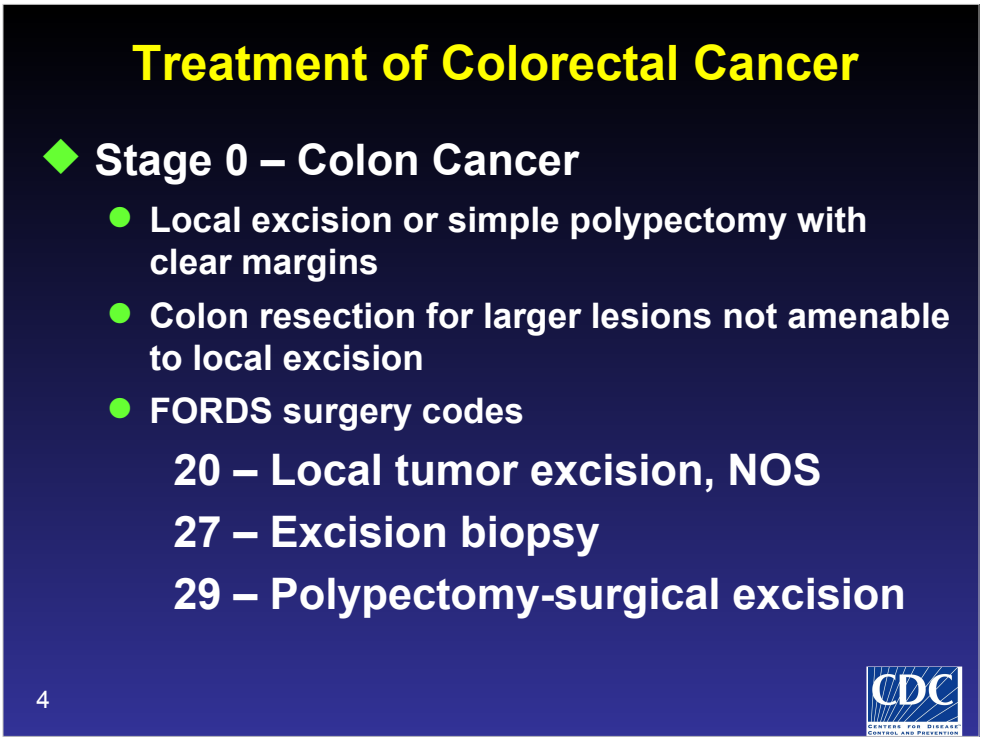
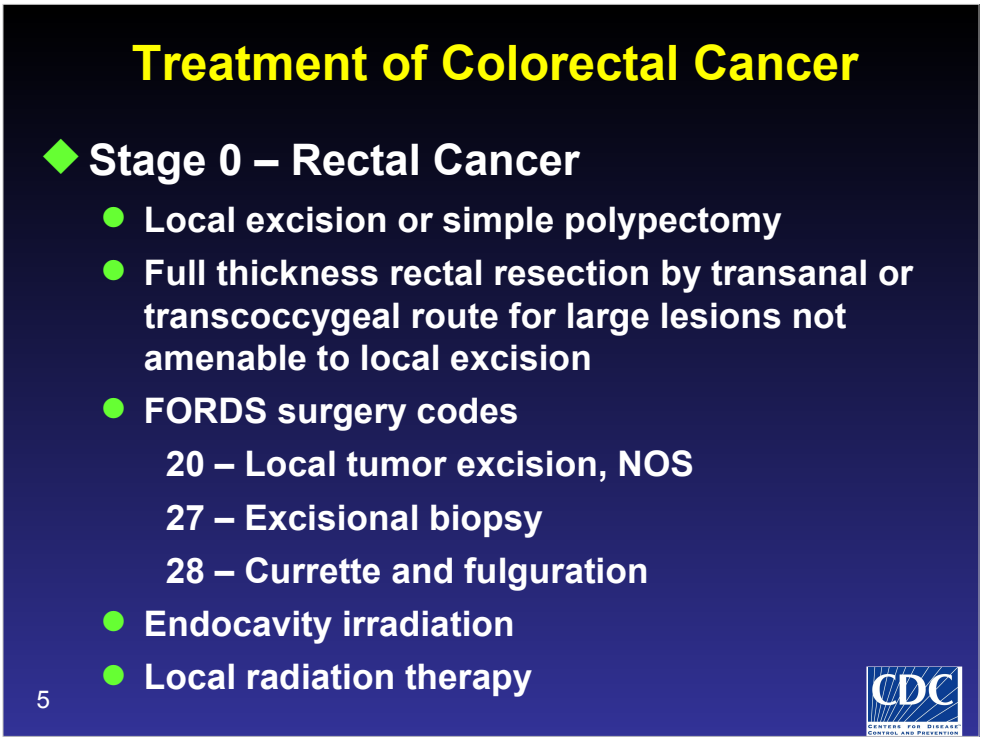
The stage or extent of disease is used by physicians to determine the appropriate treatment for a patient. We will discuss the nationally accepted practices of treatment for both colon and rectal carcinomas.



Treatment of colorectal cancer is dependent on the stage of disease at diagnosis. According to the National Comprehensive Cancer Network (nccn.org), surgery is the main treatment for colon cancer.

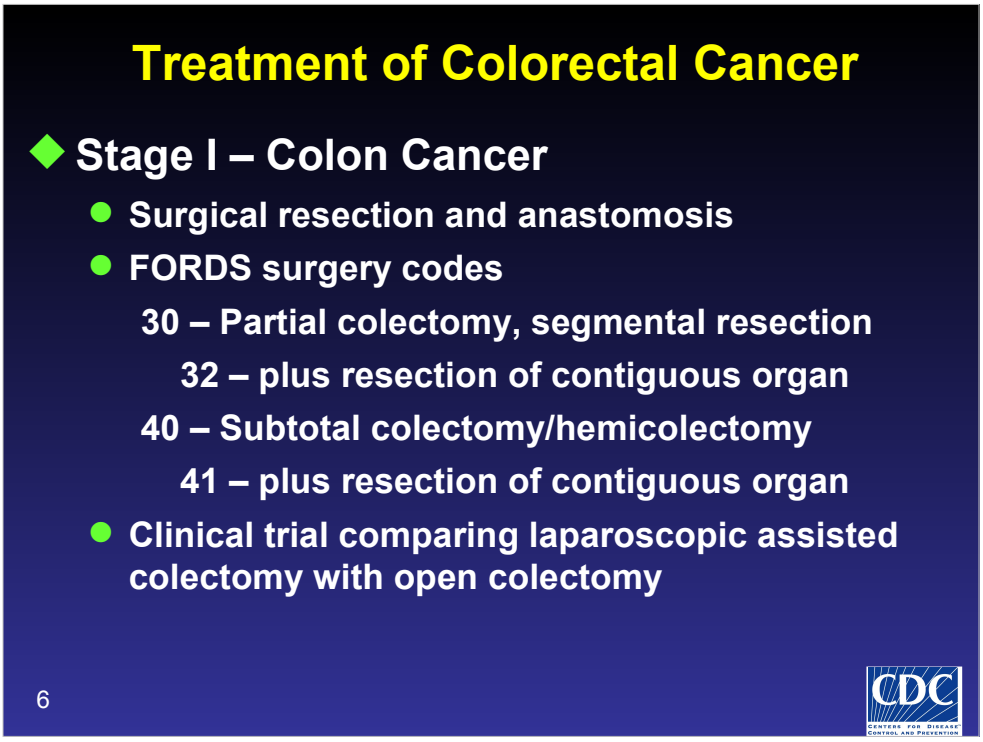
Stage 0 cases, or in situ carcinomas, are treated with local excision or polypectomy with clear margins. A colon resection can be done for larger lesions not amenable to local excision. FORDS surgical Codes 20 – 29 are used for local excisions (coded as 20) through polypectomy-surgical excision (coded as 29). Use your FORDS manual for more specific codes depending on the procedure performed.



Stage 0 rectal cancer or in situ carcinoma of the rectum, is treated in the same way as in situ colon cancer if the lesion can be resected.

FORDS surgical codes for local resection of rectal cancers begin with local tumor excision coded as 20, and go through currette and fulguration, coded as 28. Note that there is more specific information in surgical coding of a polypectomy in colon surgical codes.

The inclusion of, or primary role of, radiation therapy can be an alternative to surgery.

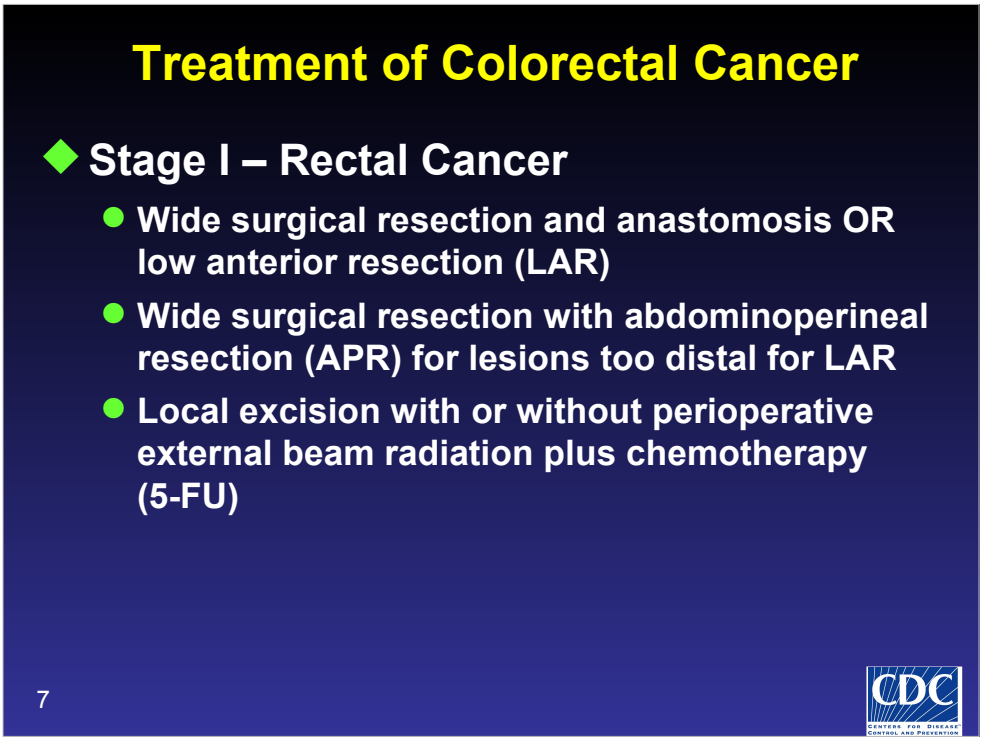


The standard of care for Stage I colon cancers is surgical resection alone. These are localized tumors with no involved lymph nodes.

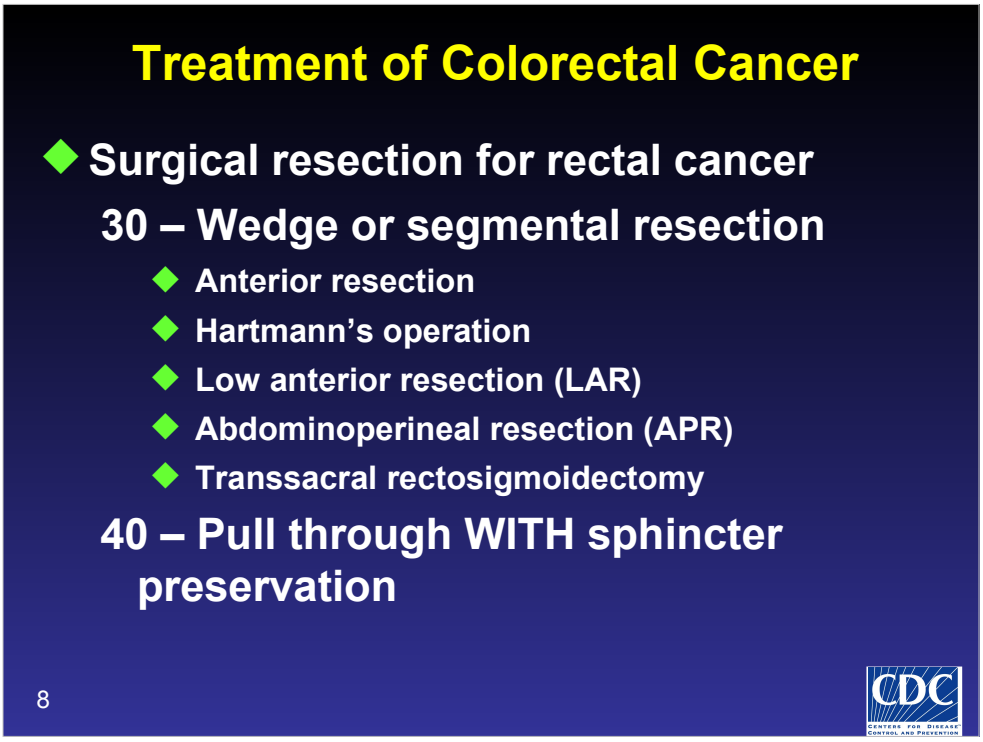
FORDS Code 30 includes a partial colectomy or segmental resection. Code 32 includes Code 30, plus resection of contiguous organs such as the small bowel or bladder.

FORDS Code 40 includes a subtotal colectomy or hemicolectomy, which includes the total right or total left colon and a portion of the transverse colon. FORDS Code 41 includes Code 40, plus resection of contiguous organs such as the small bowel and bladder.

Generally, no other treatment is warranted for Stage I colon cancer. Clinical trials are comparing laparoscopic-assisted colectomy with open colectomy. For purpose of clarification, the next few slides for rectal and rectosigmoid surgery codes will be separated from colon surgical codes.



Stage I rectal cancer is also treated with surgery, either with a low anterior resection or abdominoperineal resection for lesions too distal for low anterior resection (LAR). Local excision can be followed by external beam radiation with or without adjuvant chemotherapy, usually 5-FU.

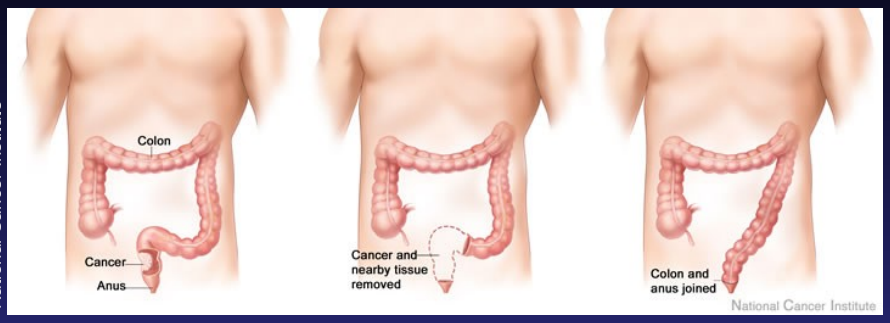


There are several surgical codes that are specific to rectal cancer:

Code 30 – wedge or segmental resection, which can include anterior resection, Hartmann's operation, low anterior resection, otherwise described as LAR and transsacral rectosigmoidectomy. The LAR is used for cancer near the upper part of the rectum. The colon is reattached to the lower rectum, and waste is eliminated in the usual fashion. The abdominoperineal (AP) resection is used for cancer near the lower part of the rectum. The anus is also removed in an AP resection. After an AP resection, a permanent colostomy is needed.

Code 40 is described as a pull through with sphincter preservation.

Surgery of Rectal Cancer



National Cancer Institute

Low Anterior Resection
(anal sphincter is preserved)

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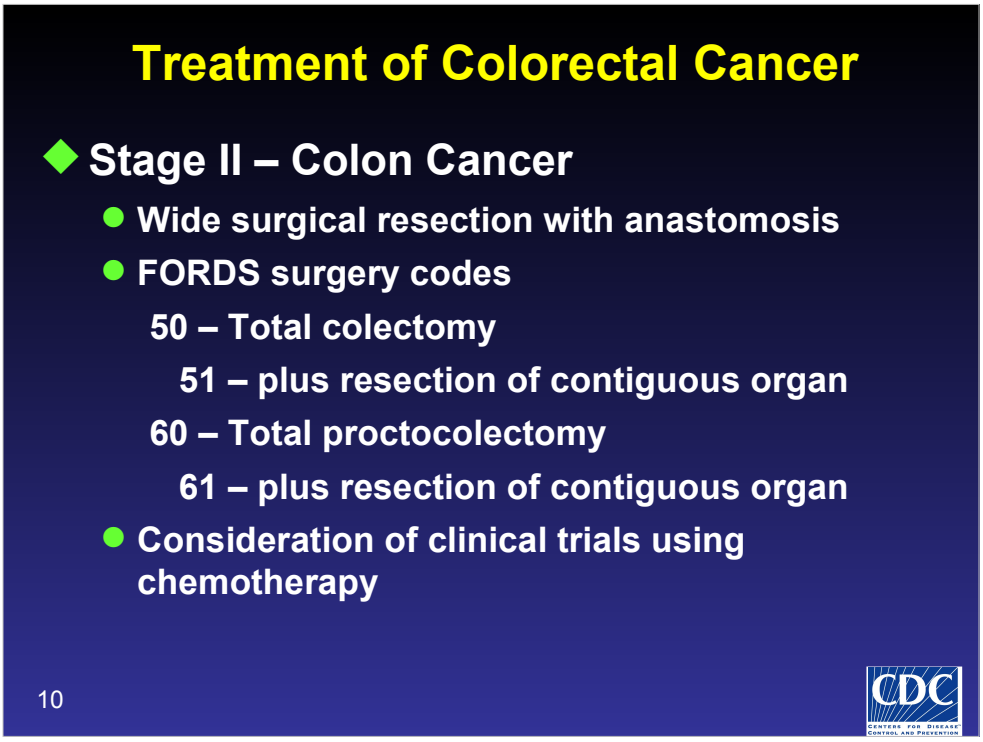
This is an illustration of surgical management of rectal cancer – low anterior resection. Notice the anastomosis. Anastomosis is defined as the procedure to connect sections of tubular structures in the body after the diseased portion has been surgically removed. In this case, the sigmoid is anastomosed to the lowest part of the rectum and an external permanent colostomy is avoided.



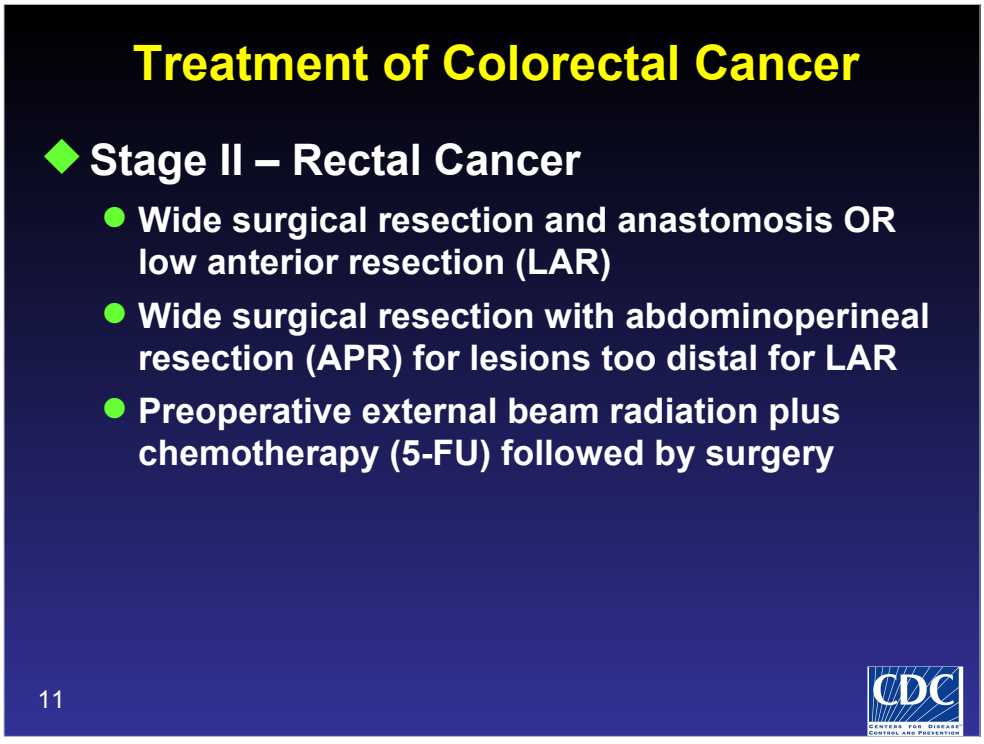
Stage II colon cancer patients undergo surgical resection, and can be considered for clinical trials to add chemotherapy after surgery.

FORDS surgery Code 50 is a total colectomy. This is removal of the colon from the cecum to the rectosigmoid junction, and could include a portion of the rectum.

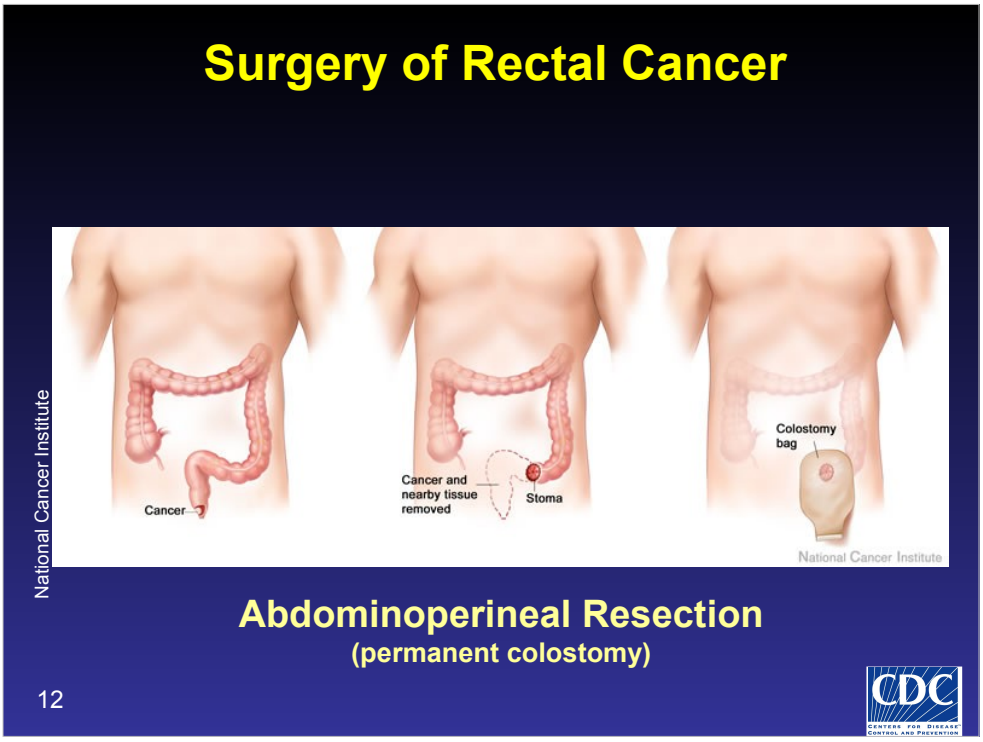
Code 51 includes Code 50 plus the resection of contiguous organs such as the small bowel or bladder.

FORDS surgery Code 60 is a total proctocolecotomy, and includes removal of the colon from the cecum to the rectosigmoid junction including the entire rectum.

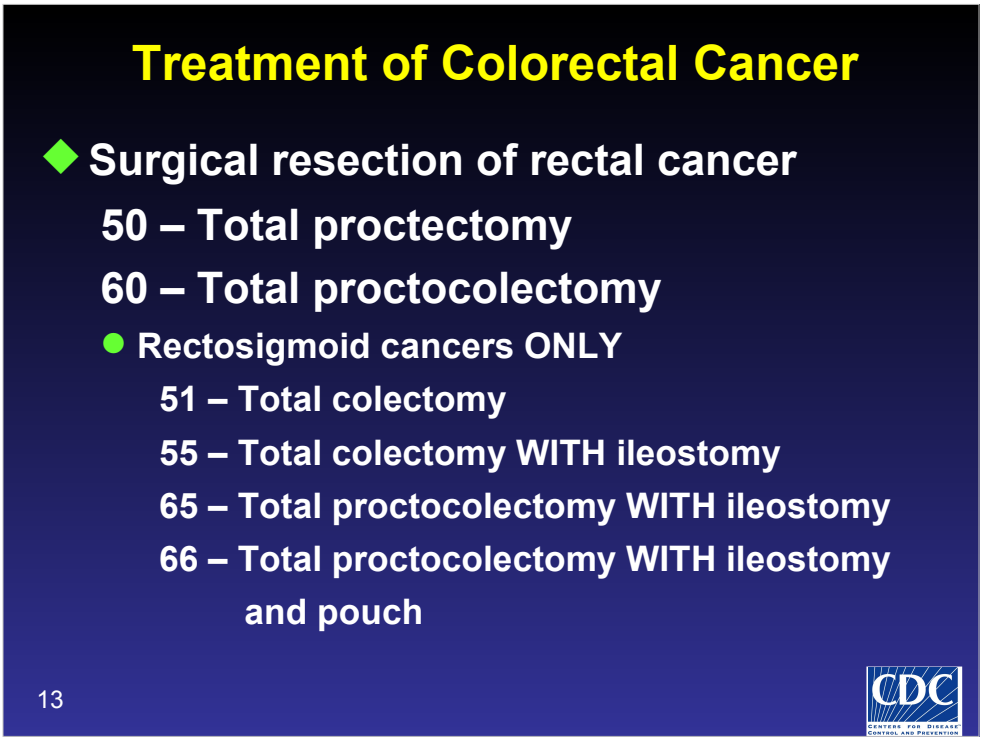
Code 61 includes Code 60, plus the resection of contiguous organs such as small bowel or bladder.



Stage II rectal cancers can be treated with surgical resection, either LAR or APR. Increasingly, the preferred treatment for these patients is preoperative external beam radiation, with or without chemotherapy, followed by surgery. This is usually dependent on the size of the lesion within the rectum.



This is an abdominoperineal resection with colostomy. The patient ends up with a colostomy, in which the end of the colon is brought out through an opening in the abdomen to evacuate body waste. The colostomy for an AP resection is permanent. For other types of colorectal surgery, the ostomy can be reversed when the patient recovers from surgery.



There are more surgical codes specific for rectal cancers:

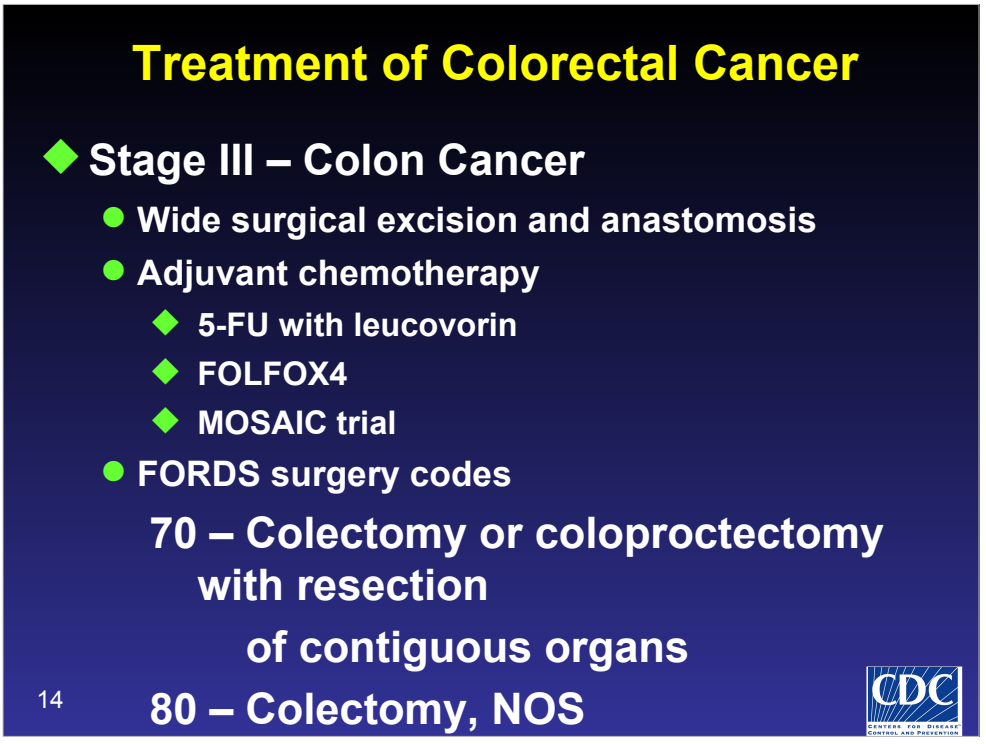
Code 50 – Total proctectomy, and Code 60, describe a total proctocolectomy

Code 51 – Total colectomy

Code 55 – Total colectomy with an ileostomy

Code 65 – Total proctocolectomy with ileostomy and finally,

Code 66 – Total proctocolectomy with ileostomy and pouch.



Stage III colon cancer is generally treated with surgery followed by chemotherapy. These are patients with node positive disease.

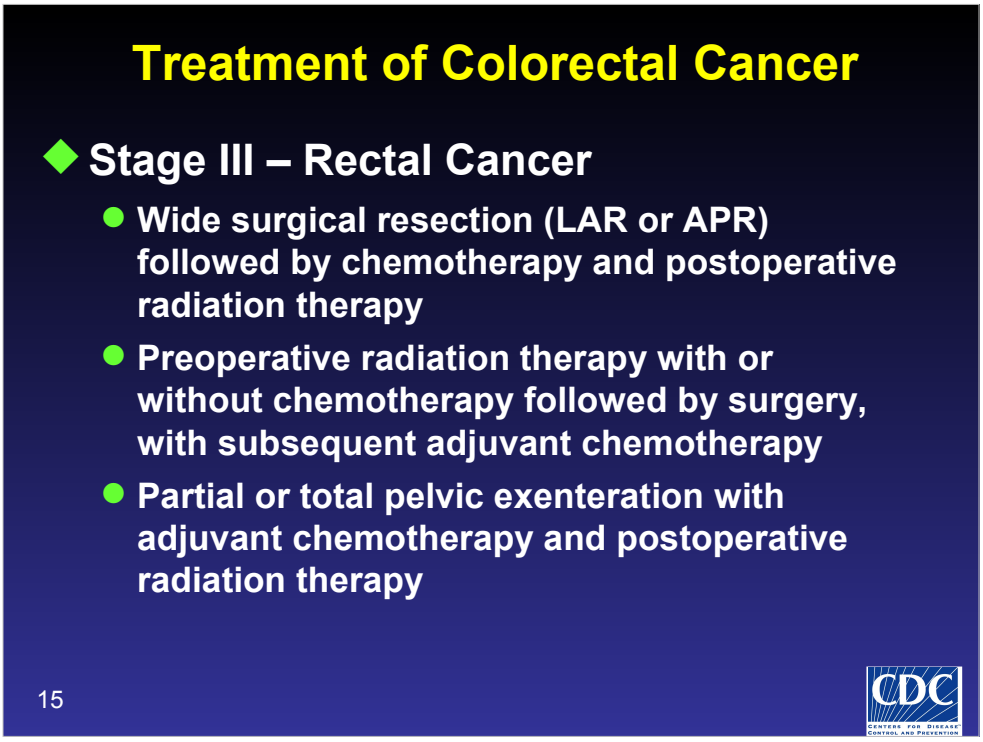
FOLFOX4 consists of oxaliplatin, leucovorin and 5-FU.

The MOSAIC trial was designed to evaluate the efficacy of FOLFOX 4 compared with 5-FU/Leucovorin.

Code 70 includes any colectomy with a resection of any other organs in continuity with the primary site. The other organs may be partially or totally removed. Other organs may include, but are not limited to, oophorectomy, partial proctectomy, rectal mucosectomy, or pelvic exenteration.

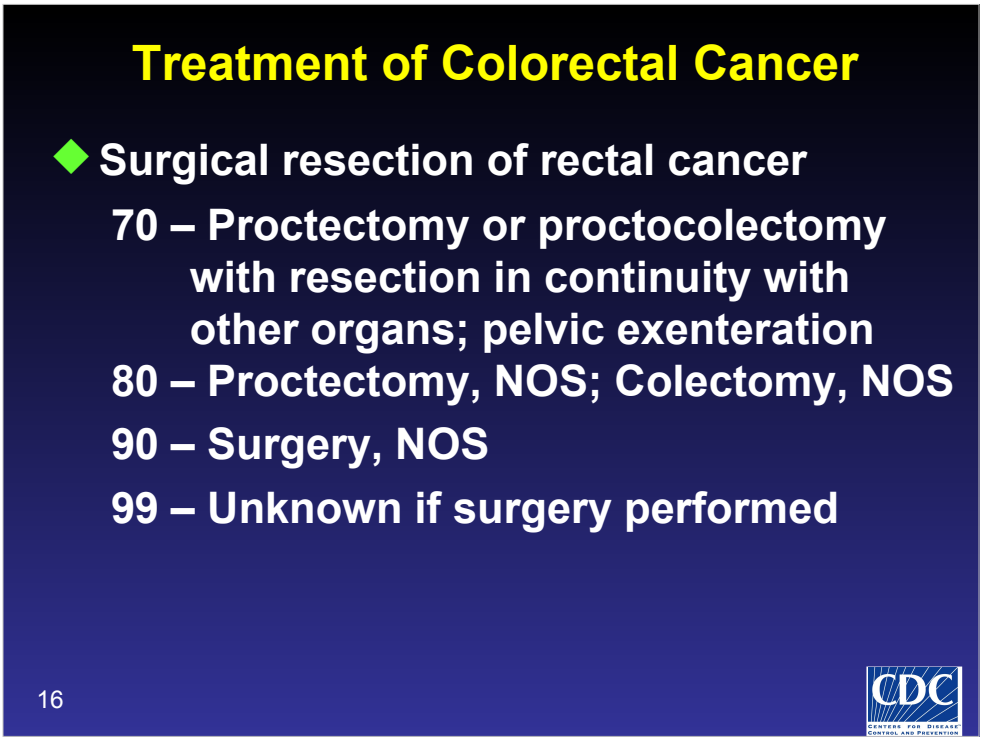
Code 80 is used for colectomy not otherwise specified.

(Source: www.nccn.org)



Stage III rectal carcinomas can be treated with wide surgical resection followed by chemotherapy and radiation therapy, or more often with preoperative radiation with or without chemotherapy followed by surgery with subsequent adjuvant chemotherapy.

A partial or total pelvic exenteration is another surgical option followed by adjuvant chemotherapy and radiation therapy.

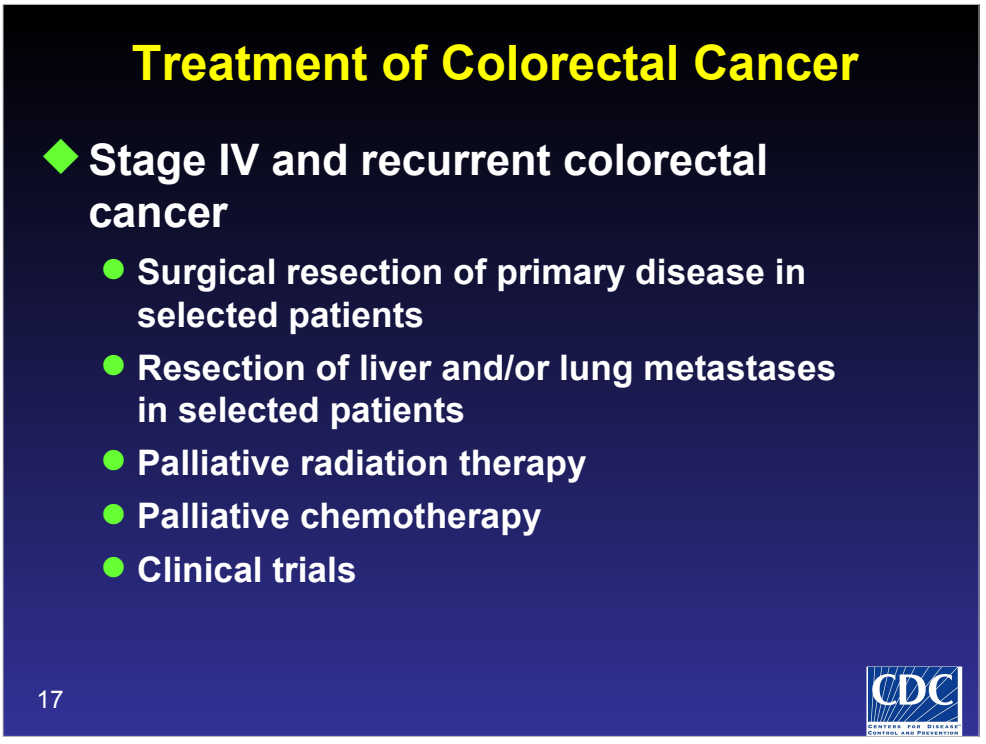


Codes for rectal/rectosigmoid cancers are continued here with Code 70, which describes the proctectomy or proctocolectomy in rectal cancers.

Code 80 describes a proctectomy, not otherwise specified (for rectal cancer) and colectomy, not otherwise specified (for rectosigmoid cancer).

Code 90 describes surgery with no other information available, and of course,

Code 99, which is unknown if surgery performed.

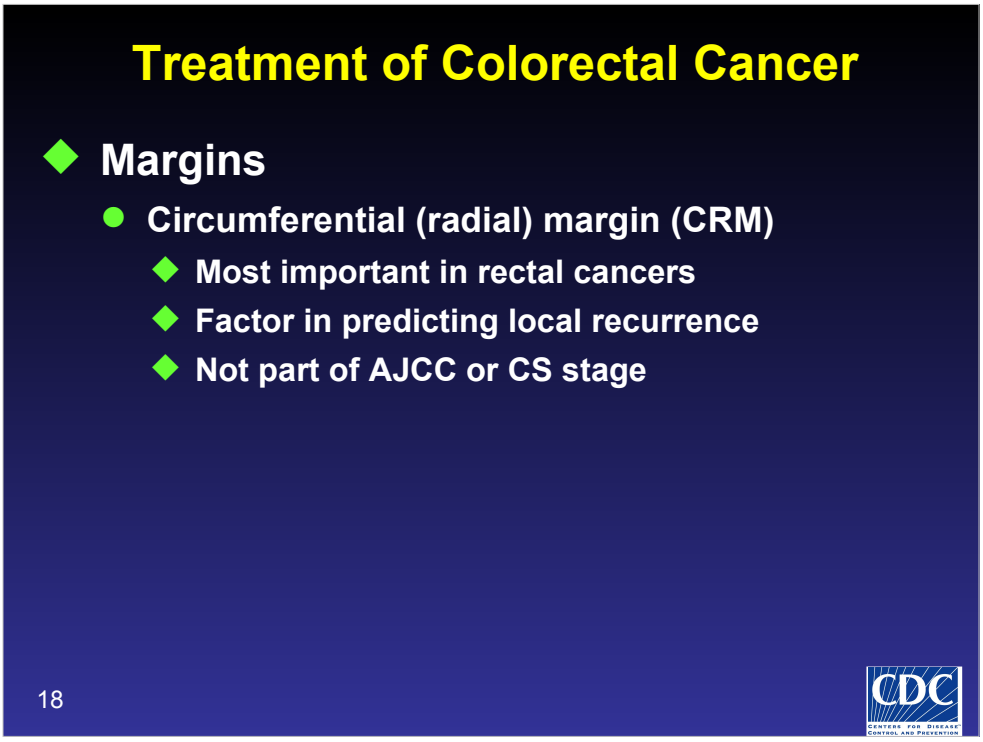


Stage IV and recurrent colorectal cancers are treated with surgical resection of the primary tumor in select patients. This is usually done for impending or acute obstruction and for palliation. If the lesion is extremely painful, the physician will perform a resection for palliation.

Resection of solitary lesions in a metastatic site can also be performed. An example is a resection of a solitary liver lesion or solitary lung lesion in select patients. These two sites are the most common metastatic sites for colorectal cancers, in that order.

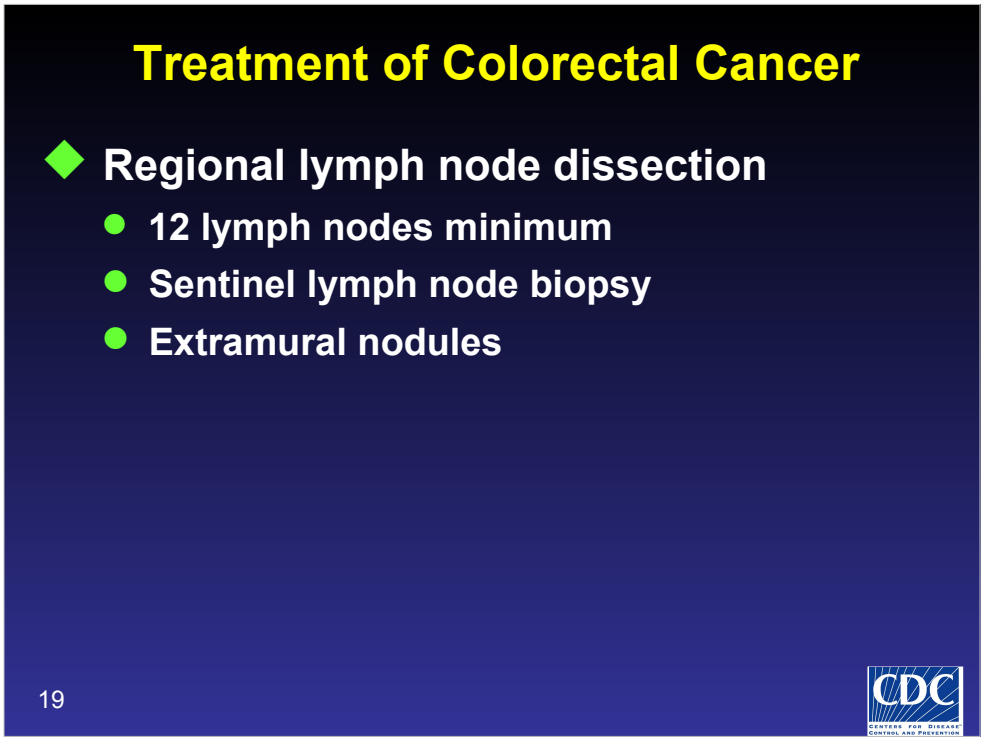
Palliative chemotherapy and/or radiation therapy could have a role in the patient's quality of life issues.

There are several clinical trials open to Stage IV and recurrent colorectal cancer patients. These trials, along with national clinical practice guidelines, can be found on the www.nccn.org Web site.



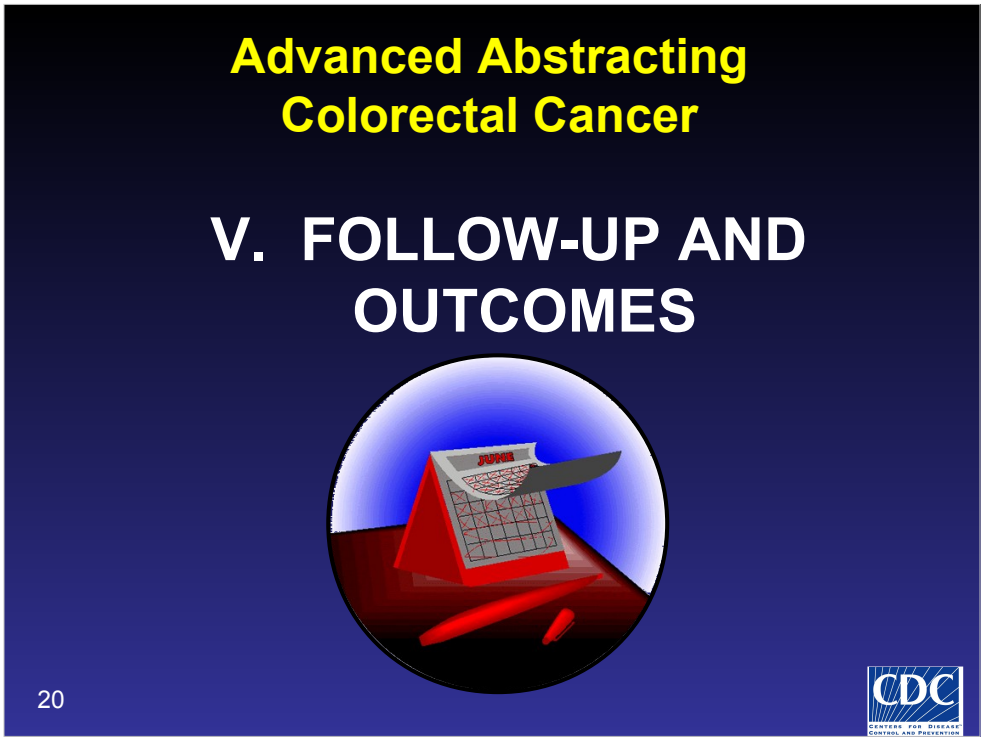
The margins of resection are always critical to the staging of the cancer and prediction of local or distant recurrence. This is particularly true of colorectal cancers. However, aside from the proximal, distal, and mesenteric margins, the circumferential (radial) margin (CRM) is also of significance. The CRM is defined as the retroperitoneal margin closest to the deepest penetration of the tumor. For all segments of the large intestine that are either incompletely encased or not encased by peritoneum, the CRM is significant. The CRM is not widely reported by pathologists. However, it has been useful in predicting local recurrence of tumors, especially in rectal carcinoma. The CRM is not used in the staging of AJCC or CS.

(Source: CA: A Cancer Journal for Clinicians 2004; 54: 295-308)

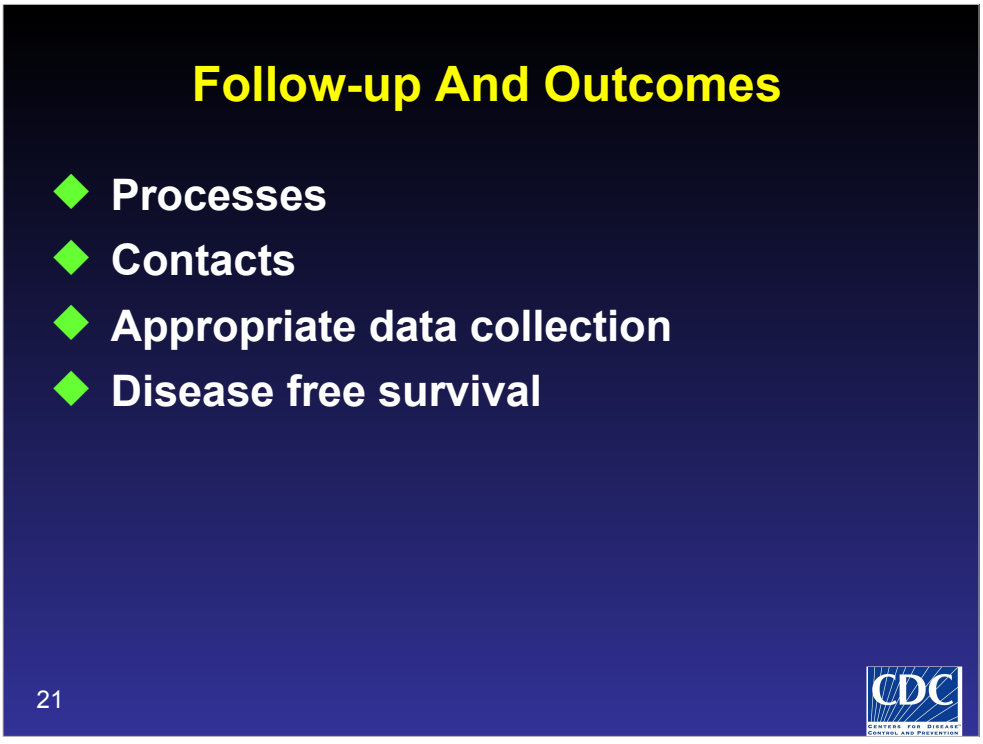


Regional lymph node dissection is extremely important in colorectal cancer. There has never been a consensus of pathologists or surgeons on what the optimal number is, but lately the majority agree that at least 12 lymph nodes should be removed (preferably 18). The lower the ratio of involved nodes to nodes removed and examined, the better the patient's prognosis.

Sentinel lymph node biopsy in colorectal cancer is not widely used and is still investigational. There is no significant data to prove its worth, as there are in breast cancer or melanoma. The issue of extramural nodules is addressed in CS and AJCC. As noted previously, when these nodules are noted in pericolonic or perirectal adipose tissue and have a smooth contour, despite the size, they are coded as regional lymph nodes. If the contour is irregular, it is coded in CS extension, Code 45. Data suggest that the presence of extramural tumor nodules correlates to decreased survival.



This section discusses follow-up of colorectal patients and outcomes measures.

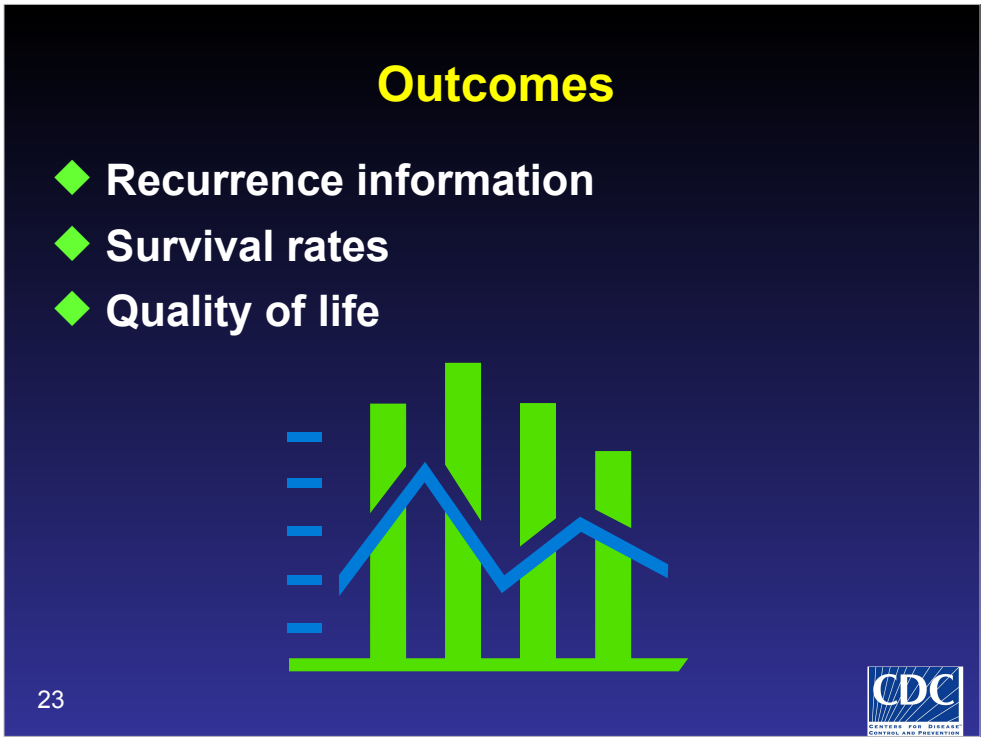


It is important to establish processes for gathering follow-up information at your facility. If you are linked to an electronic medical record, finding follow-up information is fairly straightforward. Some registrars prefer to send out letters to physicians and/or patients to obtain follow-up information. Regardless of who the initial contact is, appropriate data must be collected to achieve good follow-up. Complete and accurate follow-up will give you accurate survival rates, including disease-free survival. We can measure the success of various treatment modalities based on our follow-up, if in fact we are recording accurate information.

When recording follow-up information, you should document the most recent date you obtained information on the patient's vital status and/or tumor status.

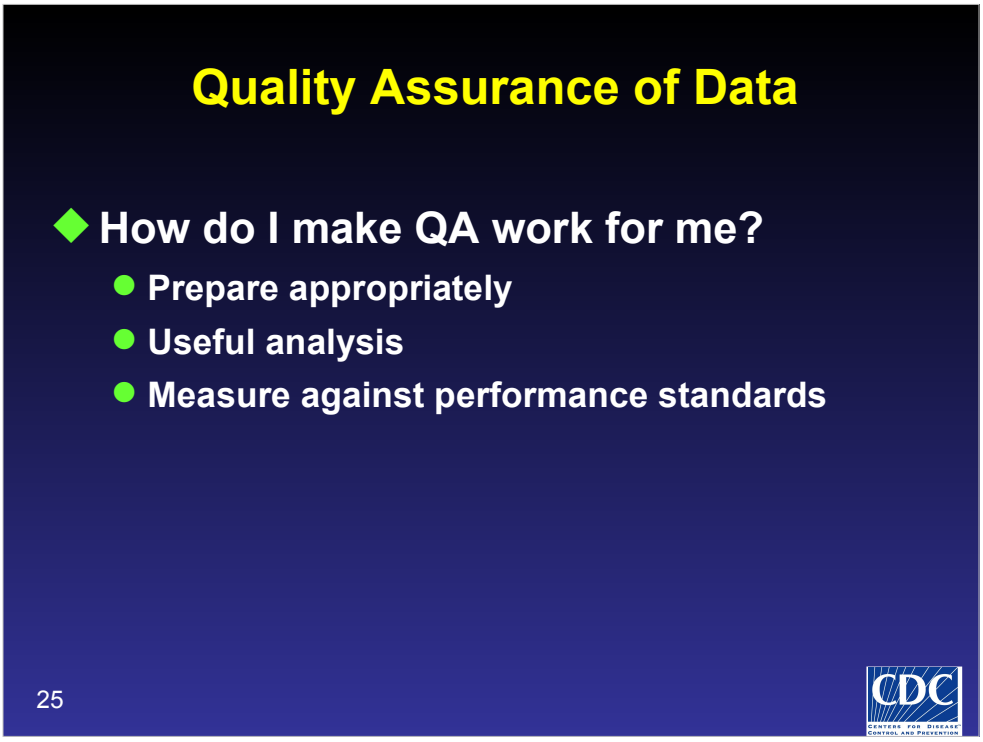
Record the patient's vital status at the time of contact and whether or not the patient was free of cancer or not. Many times patients come back into the facility for something unrelated to their cancer diagnosis. In these cases, when tumor information is not known, the only field you can update is the patient status. If recurrence information is obtained, record the dates and type(s).

Be sure to record your contact source. This will assist you in getting future follow-up information for that patient.



As mentioned in the Follow-up section, recurrence information is necessary to determine outcomes regarding the success of treatment modalities and survival rates. This is one of the principal functions of a hospital-based cancer registry. We can assess patients' disease free survival, as well as their quality of life. When a patient is actively followed, information is recorded that will tell if the patient has had significant issues following their treatment. Many facilities record subsequent treatment and palliative treatment to enhance these assessments. The more follow-up data that is recorded within the abstract, the more useful the abstract becomes.

The final section of this advanced abstracting module discusses the ultimate activity for abstracting: quality assurance (QA). QA is both making sure that data input into the registry is accurate and timely, and that data and information extracted from the registry is accurate and relevant.



Make sure that you take the time to work out the entire equation when performing QA. You should know what type of outcome you want. Quality is measurable. The quality assurance process should be useful to you as a registrar. A good start is to measure your data against national performance standards. The Cancer Program Practice Profile Reports (CP3R) study recently released by the National Cancer Data Base and the Commission on Cancer is a method of measuring quality and performance. This study looked at treatment modalities and colon cancer.

Quality Assurance

- Check your work often!
  - Errors will occur
  - System check to detect errors quickly
  - Don't depend solely on your software

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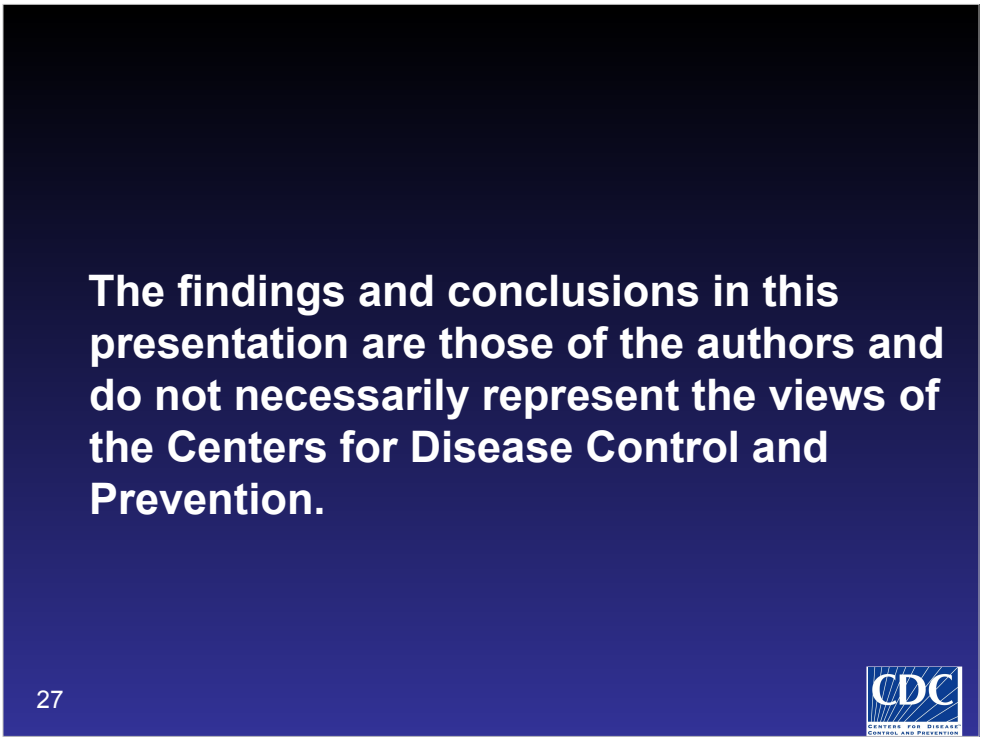
Check your work often. Always run software edit checks when completing an abstract. However, don't depend solely on your software to detect errors. The software edits will detect site/histology and other errors, but will not note that you did not provide text to support your codes. Develop a system check to detect errors quickly. Do a visual review of your abstracts. Print your abstract and check for errors. This will also help build your abstracting skills. If you have other colleagues in the department, exchange abstracts periodically, and re-abstract each others' cases for quality review.


The findings and conclusions in this presentation are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.
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(No Notes)

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Please visit www.cdc.gov/cancer/npcr